

## REMARKS

Applicant has carefully reviewed and considered the contents of the Office Action mailed June 29, 2004. Reconsideration is respectfully requested in view of comments set forth below,

Claims 1-12 were rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 5,657,850 to Suzuki, et al (hereinafter referred to as "Suzuki") in view of U.S. Patent No. 6,142,289 to Dombeck as set forth in paragraph 2 of the Action. This rejection is respectfully traversed.

As explained in the Background of the Invention of the present application, excessive use of air during the takeover and release of cigarettes can lead to an enormous noise emission and high energy consumption. The present claimed invention reduces the use of the air and, at the same time, achieves a reduction in the amount of noise and/or contamination generated during the conveyance of rod-shaped articles in the tobacco processing industry. This is achieved by transferring a rod-shaped article from a first conveying drum to a second conveying drum; and supplying a vacuum to the article at the second drum only after the article is transferred to the second conveying drum.

Suzuki relates to an apparatus for receiving rod members which includes a drum train 2 having a number of grooved drums which are arranged in a line adjacent to each other. As shown in Fig. 1, a grooved drum or catcher drum 30 is adjacent a grooved drum 100. Suzuki does not show how the double cigarettes reach drum train 2 but discusses a grooved drum 30 which receives the double cigarettes in corresponding transport grooves of the drum 30. While catcher drum 30 of Suzuki has a large number of receiving grooves 66 and suction holes 68 connected to its suction chamber 50, the structure of grooved drum 100 is not

discussed. However, Suzuki does disclose that:

the double cigarette  $T_w$  in the receiving groove 66 transfers from the drum shell 52, that is, the catcher drum 30, to a receiving groove of the groove drum 100 under the section pressure from the groove drum 100. (Column 10, lines 64-67, of Suzuki, emphasis provided).

Accordingly Suzuki teaches conveying articles from a catcher drum 30 to a groove drum 100 under suction pressure. This is in contrast to the claimed invention where a vacuum is supplied to the article at the second conveying drum only after the article is transferred to the second conveying drum.

The secondary reference to Dombek is directed to an apparatus for removing rod-shaped articles from the receptacles of a rotary conveyor. According to Dombek, a spool 19 is rotated in synchronism with the conveyor 2 and the spool 19 has at least two pairs of ports 24, 25 which discharge jets of compressed air into orifices 15, 16 of a flute 1. The jets of compressed air issuing from orifices 15, 16 expel articles from flute 1 at an injecting station A. Thus, Dombek teaches employing built-up pressure to remove an article from a conveyor drum. This is not supplying a vacuum to the article at a second conveying drum only after the article is transferred to the second conveying drum as claimed by Applicant.

According to the Action, it would have been obvious to one of ordinary skill in the art to employ a first conveying drum, as taught by Dombek, in the device of Suzuki for the purpose of providing means to transport rod-shaped articles to a second conveying drum. However, it is respectfully submitted that even if combined, Applicant's invention would not result. Instead, the alleged first conveying drum of Dombek would issue jets of compressed air from its orifices to expel an article would be combined with a groove drum 100 of Suzuki under suction pressure from the groove drum 100. While column 12, lines 44-48 of the

claims in Suzuki recite that suction means of the catcher drum supply a suction pressure to the suction holes after the rod member is received in the receiving groove of the catcher drum, this is supported by the disclosure in column 9 through column 10, line 5 of Suzuki. According to the disclosure of Suzuki, the suction holes 68 of receiving groove 66 are connected to a suction chamber 50 through the suction slot 84 of a control sleeve 42 during the rotation of the drum shell 52. “Suction slot 84 extends for a region  $S_1$  in the circumferential direction of control sleeve 42” and is “always connected to the corresponding suction chamber 50”. That is, the suction slot 84 of catcher drum 30 applies suction at an angular position where double cigarette  $T_w$  is to be received. This is not supplying a vacuum to an article at the second conveying drum only after the article is transferred to the second conveyor drum as claimed by Applicant. Instead, the suction pressure taught by Suzuki passes through a predetermined first region  $S_1$  as shown in Fig. 4 of Suzuki. Thus, while claim 2 of Suzuki states supplying a suction pressure after the rod member is received, the disclosure of Suzuki does not teach or suggest only supplying a vacuum to the article as required by Applicant’s claim.

Independent claim 1 of Suzuki recites “braking means for stopping the rod member advancing in the tunnel-shaped groove”, which includes the suction means of claim 2. Independent claim 1 states that the “suction means” of Suzuki attracts the rod members to the groove. Thus, independent claim 1, along with the disclosure, suggests that the suction pressure attracts the rod member prior to being received in the groove; and claim 2 further defines the invention to positively state that the suction pressure occurs “after the rod member is received in the receiving groove”. Consequently, even if Dombek was combined with this teaching of Suzuki, at most a drum catcher 30 with a region in which suction pressure is

applied would result. Nowhere does either Suzuki or Dombek provide a teaching or the necessary motivation to modify Suzuki's drum catcher to meet Applicant's claimed invention.

In view of the above, it is respectfully submitted that independent claim 1 and its dependent claims 2-33 are not rendered obvious by any combination of Suzuki in view of Dombek. Applicant submits that this application is in condition for allowance and respectfully requests a Notice of Allowability indicating the same.

Should the Examiner believe a conference would advance the prosecution of this application, he is encouraged to telephone the undersigned counsel to arrange such an interview.

Respectfully submitted,

  
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Catherine M. Voorhees  
Registration No. 33,074  
VENABLE LLP  
P.O. Box 34385  
Washington, D.C. 20043-9998  
Telephone: (202) 344-4800  
Telefax: (202) 344-8300

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